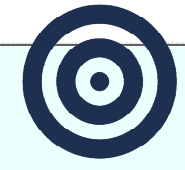


Implementing the GreyGuide Repository within the D4Science Infrastructure

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THE CHALLENGE

Grey Literature remains essential for Scholarly communication, yet many valuable outputs including conference papers, posters, presentations, datasets, and multimedia resources face challenges related to:

- ❖ Discoverability
- ❖ Interoperability
- ❖ Preservation
- ❖ Long-term sustainability

The Grey Guide repository was established to address these Challenges and Provide an open access platform dedicated to Grey Literature.



THE GREYGUIDE REPOSITORY

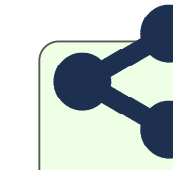
The Grey Guide repository is a collaborative initiative of GreyNet International and ISTI-CNR that provides open access to scholarly resources in Grey literature.

It aggregates:

- Conference papers
- Posters
- Presentations
- Data papers
- Multimedia resources
- Associated dataset

The repository has evolved into a reference point for the Grey Literature Community by supporting open dissemination and knowledge sharing.

<https://greyguiderep.isti.cnr.it/>

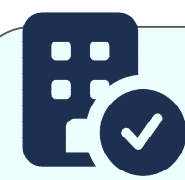


D4SCIENCE: THE NEW INFRASTRUCTURE

D4Science is an open science digital infrastructure developed and operated by the Italian National Research Council (CNR). It provides researchers, institutions, and scholarly communities with Virtual Research Environments (VREs) that support collaboration, data management, publishing workflows, and access to distributed research resources.

Through cloud-based services and interoperable technologies, D4Science enables the creation of community-oriented gateways where users can share datasets, publications, software, and workflows in accordance with FAIR and Open Science principles.

The infrastructure currently supports hundreds of research communities across multiple scientific domains, offering scalable solutions for knowledge management, preservation, and scholarly communication.



IMPLEMENTING GREYGUIDE WITHIN D4SCIENCE

D4Science provides the technological foundation and operational sustainability supporting the implementation of the repository by a dedicated gateway and a series of Virtual Research Environments enabling the development of a Catalogue.

THE IMPLEMENTATION RELIES ON:

- ✓ Repository and publication services
- ✓ Collaborative workspaces
- ✓ Metadata management facilities
- ✓ Persistent identifier integration
- ✓ Access control and user management
- ✓ FAIR-compliant data and publication workflows
- ✓ Long-term preservation services



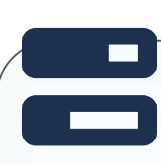
The resulting platform combines content management, collaboration, and dissemination capabilities within a sustainable research infrastructure.



BENEFITS

The integration of GreyGuide with D4Science creates value for publishers, researchers, and the wider community by improving discoverability, interoperability, sustainability, and access to grey literature resources.

FOR PUBLISHERS	FOR RESEARCHERS	FOR THE COMMUNITY
Sustainable repository	Improved discoverability	Open access
Persistent identifiers	Better citation and attribution	FAIR resources
Metadata interoperability	Access to associated datasets	Long-term preservation
Integrated workflows	Connections among outputs	Greater visibility of grey literature



PROJECT STATUS

- ✓ Community Gateway Deployed
- ✓ Repository Deployed
- ✓ Repository Configuration and Content Migration (Ongoing)



<https://greyguide.d4science.org>



REFERENCES

L. Candela, D. Castelli and P. Pagano. **The D4Science Experience on Virtual Research Environment Development.** *Computing in Science & Engineering*, vol. 25, no. 2, pp. 12-19, March-April 2023, doi:[10.1109/MCSE.2023.3290433](https://doi.org/10.1109/MCSE.2023.3290433)

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